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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,152	12/20/2001	Frank Brooks	09752-148001 / 00-122	3566

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EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 10/06/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,152

Applicant(s)

BROOKS ET AL.

Examiner

DANH C LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3/01/02 (paper # 4) has been considered by the examiner and made of record in the application file.

Claim Objections

3. Claim 8 is objected to because of the following informalities:
On page 15, line 1, after "service" , "if" should change to --is--
Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-8, 13, 14, 16, 21, 23, 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Ham (US 6,633,760).**

As to claim 1, Ham teaches the method of automatically reconnecting a dropped wireless communication system (figure 4) comprising:

detecting a call disconnection (called drop detected);

determining the call disconnection was unintentional (col.1, line 65-col.2, line 3);

and

reconnecting the call (call service).

As to claim 2, Ham teaches the method of Claim 1, further comprising determining a call originator (col.4, lines 27-42, col.5, lines 12-24, channel assignment message for incoming call, and origination message for outgoing call).

As to claim 3, Ham teaches the method of Claim 2, further comprising attempting reconnection by the call originator (col.5, lines 25-35).

As to claim 4, Ham teaches the method of Claim 1, further comprising; starting a timer upon detecting the call disconnect (T-val2); and

terminating the call upon expiration of the timer (col.6, lines 21-51).

As to claim 5, Ham teaches the method of Claim 4, further comprising providing indicator the call was terminated (col.4, lines 20-26, disconnected).

As to claim 6, Ham teaches the method of Claim 1, further comprising providing indicator the call was dropped (col.4, lines 20-26).

As to claim 7, Ham teaches the method of Claim 1, further an indicator the reconnected (col.4, lines 20-26).

As to claim 8, Ham teaches a method of reconnecting dropped calls in a wireless communication system comprising:

determining a call originator (col.4, lines 27-42, col.5, lines 12-24, channel assignment message for incoming call, and origination message for outgoing call).

detecting a dropped call (called drop detected);

detecting if service is available (call service);

attempting reconnection by the call originator, if the service is available (col.6, line 52-col.7, line 10); and

terminating the call if not reconnected within a predetermined period of time (col.6, lines 31-51).

As to claim 13, Ham teaches the method of Claim 8, determining the call was dropped by loss of a forward traffic channel (col.7, lines 10-26).

As to claim 14, Ham teaches the method of Claim 8, determining the call was dropped by loss of reverse traffic channel (col.5, line 57-col.6, line 5).

As to claim 16, Ham teaches a wireless communication system (figure 5) comprising:

- a base station (BSS); and

- a mobile station (MS, origination message for outgoing call) which initiates a call with the base station, wherein the mobile station determined the call with the base station becomes disconnected (call drop detected) and attempts to automatically reconnect the call within a predetermined period of time, and wherein the mobile station and the base station terminates the call if not reconnected within the predetermined period of time (figure 7, 707, 710).

As to claim 21, Ham teaches the wireless communication system station of Claim 16, wherein the mobile determines the call was dropped loss of a forward traffic channel (col.7, lines 10-26).

As to claim 23, Ham teaches the wireless communication system (figure 4) comprising:

- a mobile station (MS); and

- a base station (BSS, channel assignment message for incoming call) which initiates a call with a mobile station, wherein the base station determines the call becomes disconnected and attempts to automatically reconnect the call within a

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predetermined period of time, and wherein the mobile station and the base station terminate the call if not reconnected within the predetermined period of time (figure 8, 802, 804, 808).

As to claim 27, Ham teaches the wireless communication system of Claim 23, wherein the base station determines the call was dropped by loss of a reverse traffic channel (col.5, line 57-col.6, line 5).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 9-11, 17-19 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of Kim (6,343,216).**

As to claims 9-11, Ham teaches the method for reconnection of a dropped call in mobile in mobile communication system which notifying mobile station the call was dropped, reconnected or terminated (col.4, lines 20-26). Ham fails to teach notifying other subscriber. Kim teaches notifying other subscriber (col.6, lines 5-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kim into the system of Ham in order to inform all parties the status of the call service either dropped, reconnected or terminated as Kim suggested (col.6, lines 5-13).

As to claims 17-19, Ham teaches the wireless communication method for reconnection of a dropped call in mobile in mobile communication system which the mobile station provides an indication the call was dropped, reconnected or terminated (col.4, lines 20-26). Ham fails to teach the base station provide the notification of the call. Kim teaches the base station provide the notification of the call (col.5, lines 32-38, col.8, lines 15-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kim into the system of Ham in order to inform all parties the status of the call service either dropped, reconnected or terminated as Kim suggested (col.6, lines 5-13).

As to claims 24-26, the limitations of these claims are the same limitations of claims 17-19; therefore, these claims are interpreted and rejected as set forth as claims 17-19.

8. Claims 12, 15, 20, 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham in view of Pittampalli (US 2002/0065080).

As to claims 12 and 20, Ham teaches the wireless communication method for reconnection of a dropped call in mobile in mobile communication system. Ham fails to teach the mobile station determines the call was dropped by loss an active pilot. Pittampalli teaches the mobile station determines the call was dropped by loss an active pilot (paragraph 0026, 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pittampalli into the system of Ham in order to detect the calls that in danger of drop by loss an active pilot as Pittampalli suggested (paragraph 0026, 0028).

As to claims 15, 22 and 28, Ham teaches the method for reconnection of a dropped call in mobile in mobile communication system which either mobile or base station detecting the call was dropped. Ham fails to teach the call was drop by lack of message acknowledgement. Pittampalli teaches the call was dropped by lack of message acknowledgement (paragraph 0026, 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pittampalli into the system of Ham in order to detect the calls that in danger of drop by lack of message acknowledgement as Pittampalli suggested (paragraph 0026, 0028).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Chun (US 6,745,031 6,754,498 6,766,173) teaches reconnection of the dropped call in mobile communication system.

B. Lee et al (US 6,667,932) teaches method of recovering the dropped call in mobile station for CDMA system and method for incoming recovery of dropped call.

C. Lee et al (US 6,246,872) teaches mobile switching center and method for handling a dropped call connect between mobile station and a base station transceiver.

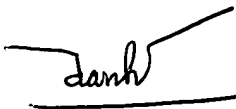
D. Takahashi (US 5,239,571) teaches radio telephone device capable of automatically reconnecting an abnormally terminated communication line.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "danh", is written over a horizontal line.

September 29, 2004

DANH CONG LE
PATENT EXAMINER